

# Telehealth in Kentucky

*Doing Care Differently*

**2014 Kentucky  
e-Health Summit**  
*Workshop C*



**Donna Veno**  
**Mary Horsley**  
**Tim Bickel**  
**Rob Sprang**

**Why did you pick this session?**

# **What do you want to do?**

- Start telehealth initiative
- Expand an existing telehealth initiative
- Reduce emergency room overutilization
- Patient access (home, clinic, work, LHD, hospital)
- Connect providers for education
- Technology to reduce travel for meetings/education
- Use telehealth to embrace healthcare reform

# **What do you want to know?**

- Practical applications of telehealth
- Technology issues/considerations
- Legal/Regulatory issues/considerations
- Process to do telehealth
- Personnel required for telehealth
- Resources in KY to help you

# **What is Telehealth?**



**Using technology to:**

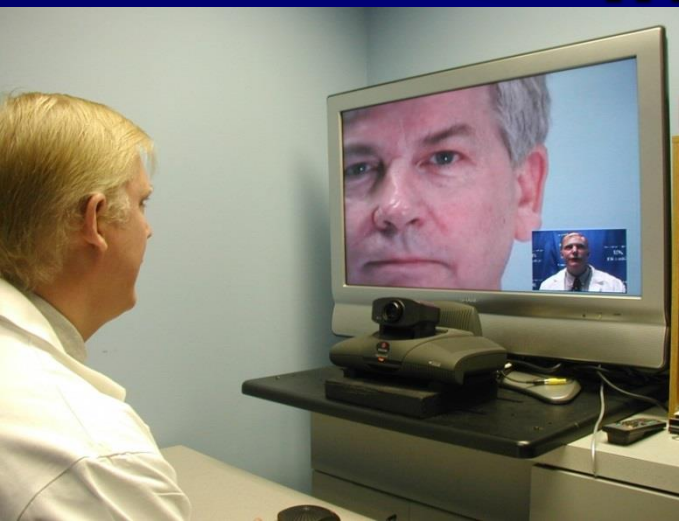
**Get the right care**

**To the right people**

**At the right time**

**In the right place**

**For the right price**



# **History of Telehealth in Kentucky**

- 1995 – Telehealth is launched at UK. No reimbursement for clinical encounters
- 1998/2001 – Medicare legislation
- 2000 – Kentucky TeleHealth Legislation
  - Funded statewide expansion to the west
  - Mandated Medicaid/Commercial reimbursement
  - Created Board of Directors
  - Created 4 Telehealth Training Centers
- 2004 – [www.kytelehealth.net](http://www.kytelehealth.net) on-line schedule
- 2013 – Medicaid reg expanded services and locations
- Today – 250+ network sites, national recognition, 80,000+ encounters, hospitals, clinics, school clinics, mental health, CCSHCN, KYDPH, state/federal prison system, large industry...



# Role of telehealth in a reformed healthcare system – *Aligning with Triple Aim*

- Improving the patient experience, including quality and satisfaction – ***Right care/right people/right time/right place/right price***
- Improving the health of populations – ***Extend care to more patients, resulting in healthier populations***
- Reducing the per capita cost of care – ***Managing chronic disease, reducing acute events and helping patients remain OUT of the emergency room and hospital***



# Practical applications of telehealth

- Medical specialists
- Behavioral Health specialists
- Emergency Medicine/ICU monitoring
- CCSHCN rural clinics
- Workplace health program
- Remote Patient Monitoring
- Direct-to-Consumer
- Connecting students/residents in rural KY
- Connecting providers in rural KY
- Connecting administrators in rural KY



# Technology Considerations

- Interactive videoconferencing
- Statewide 7 digit dial plan
- Standards-based vs. proprietary
- Store and forward
- Mobile technologies
- Network/bandwidth
- Security

# Legal/Regulatory Considerations

- Medicare – Interactive VTC, rurality/HPSA, providers, service types, facility fee, coding
- Medicaid – Interactive VTC, KTHN member, H.323 standards, providers, facility fee, coding
- Private insurance – Interactive VTC, facility fee, coding
- Privileging/Credentialing
- Licensure
- Anti-Kickback/Stark self-referral law
- Medical malpractice/liability
- FDA – medical equipment

# Kentucky TeleHealth Network Resource Centers

University of Kentucky - Rob Sprang  
[rsprang@uky.edu](mailto:rsprang@uky.edu) 859-257-6404

University of Louisville – Tim Bickel  
[tmbick01@louisville.edu](mailto:tmbick01@louisville.edu) 502-562-5775

St. Claire Regional Medical Center, Morehead – Mary Horsley  
[mahorsley@st-claire.org](mailto:mahorsley@st-claire.org) 606-783-6476

Baptist Health System, Madisonville – Steve Fricker  
[steve.fricker@bhsi.com](mailto:steve.fricker@bhsi.com) 270-226-8180



**If we discuss healthcare reform  
and how telehealth is vital to its  
success**

**You get what you pay for**

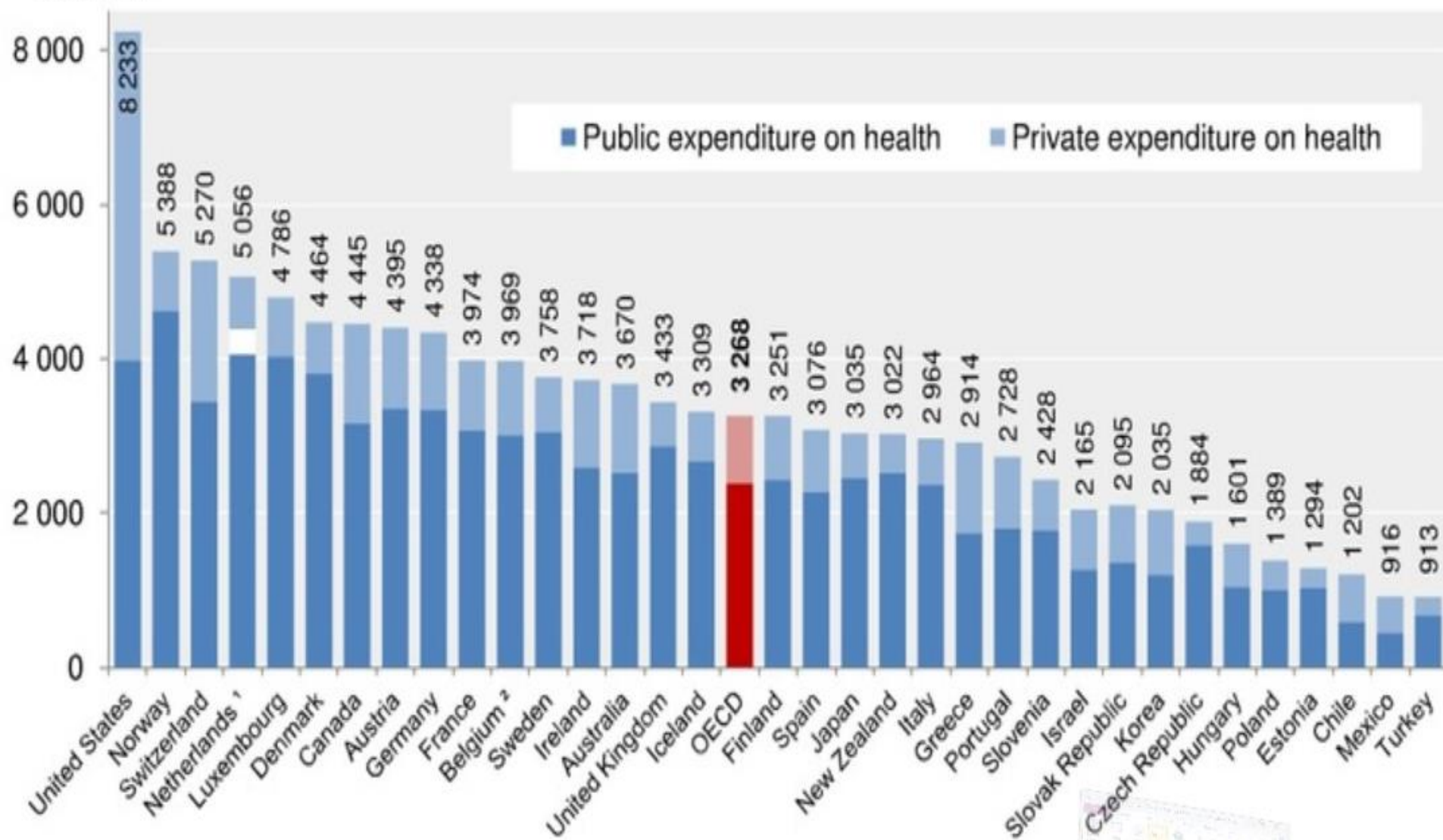


# Healthcare when I was a kid

- 70%+ had hospital insurance, but few had primary/out of hospital care insurance
- 1 in 8 citizens were admitted to inpatient settings each year
- Emergency room visits went up 175% between 1954 and 1964
- Sore throat?

# Total health expenditure per capita, public and private, 2010 (or nearest year)

USD PPP



# US health spending

US HC spending per capita \$8,233-8,508  
(+35%)

#2 \$5,669-6,712

US HC spending as % of GDP 17.6-17.7%  
(+47%)

#2 11.9-12.1%

# 2006 US mortality rankings

*(192 countries)*

|                        |    |
|------------------------|----|
| Life expectancy        | 36 |
| Infant mortality       | 39 |
| Adult female mortality | 43 |
| Adult male mortality   | 42 |

**The US healthcare system, built  
upon rewarding volume over  
value has led to:**



Photo courtesy of Joe Tracy



**Now, let's talk about Kentucky...**

# Healthcare problems in KY

- Kentucky's national health rankings from ***americashealthrankings.org***

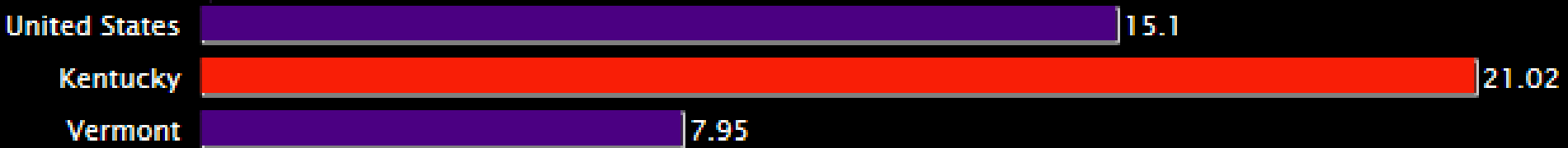
|   |    |
|---|----|
| • Adult smoking rate                      | 50 |
| • Obesity                                 | 42 |
| • Low birth weight                        | 43 |
| • Preventable Hospitalizations (Medicare) | 49 |
| • Poor mental Health days                 | 49 |
| • Poor physical health days               | 50 |
| • Cardiovascular deaths                   | 43 |
| • Cancer deaths                           | 50 |
| • Premature death                         | 45 |
| • Overall rank                            | 45 |

Overall rank dropped 2 spots from 2012

# USA INFLUENZA AND PNEUMONIA

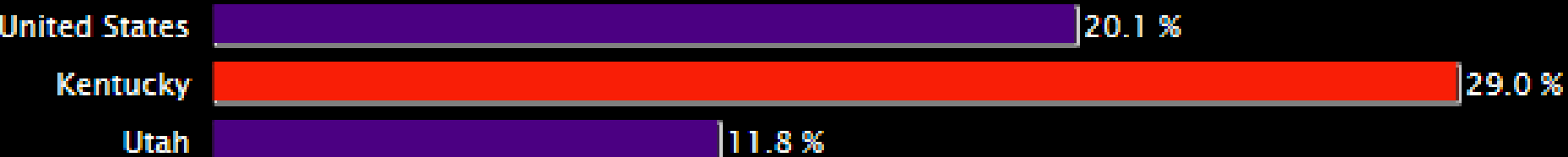
Death Rate Per 100,000

USA Influenza and Pneumonia death rate by state. Latest CDC data is used to compare and rank each state. Use the interactive chart to rank from low to high and high to low to add perspective to your research.



# USA ADULT SMOKING RATE

Percent of Adults Who Smoke



# USA CANCER

Death Rate Per 100,000

USA Cancer death rate by state. Latest CDC data is used to compare and rank each state. Use the interactive chart to rank from low to high and high to low to add perspective to your research.



# The Bad News:

SUNDAY, APRIL 6, 2014

## BLUEGRASS SUNDAY



**THE DAILY FEED** What you're hungry for on Kentucky.com

**Snapped: Photos from events around Lexington**

See faces from Community Game Night hosted by Lexington United and A Cup of Common Wealth on Friday and from tailgating at Keeneland on Saturday.



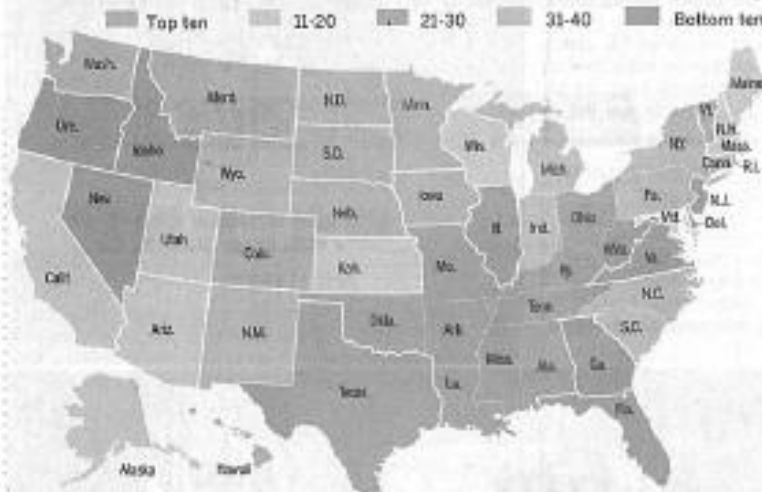
LEXINGTON HERALD-LEADER

SECTION 8

## Eastern Ky. worst in national well-being

### How the states measure up

West Virginia (61.4) and Kentucky (63.0) had the two lowest scores for the fifth year in a row in the Gallup-Healthways Well-Being Index. North Dakota's was the highest, at 70.4.



Source: Gallup-Healthways 2013 Well-Being Index

CHRIS WARE | cware@herald-leader.com

### DEPRESSION AND SUBSTANCE-ABUSE ADDICTION ON THE RISE

By Bill Estep

bestep@herald-leader.com

Kentucky did poorly in the latest national survey of well-being, but the state's 5th Congressional District fared even worse.

The district covering Eastern and Southern Kentucky ranked the lowest among 434 nationwide included in a survey of people's perception of well-being.

The survey assessed people's emotional and physical health; behavior that affects health, such as smoking or exercising; job satisfaction and access to basic needs, including food and housing; and their outlook on life.

It's not the first time the region has finished at the bottom of the index compiled by the Gallup polling organization and Healthways, a Ten-

### Feeling bad in Eastern Kentucky

The congressional district covering Eastern and Southern Kentucky ranked the lowest among 434 nationwide included in a survey of people's perception of well-being. Kentucky ranked 49th among states, above only West Virginia.



Source: Gallup-Healthways Well-Being Index

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nessee-based company that provides services to improve well-being.

Donna Pace sees the reality of the survey every day. She heads the Harlan County Community Action Agency, which has assistance pro-

grams to help people with heating, food and other needs. Requests for service have increased as jobs in the regional coal industry plummeted the last two years.

"We're seeing people

See SURVEY, B3



**“Insanity is doing the same thing  
over and over again but  
expecting different results”**

Rita Mae Brown from her  
book “Sudden Death” (1983)

# So what do we do?

- Focus on the “Triple Aim”
  - Emphasize the patient experience/patient satisfaction
  - Emphasize population health
  - Reduce per-capita cost of healthcare
- Move from “sick care” to “health care”
- **The payment system for health services**
  - Providers share the financial risk and reward
  - Incentives to deliver outstanding care at lower costs
  - Penalties for poor care at high costs (readmissions)
  - Payment is tied to quality metrics

# The Good News:

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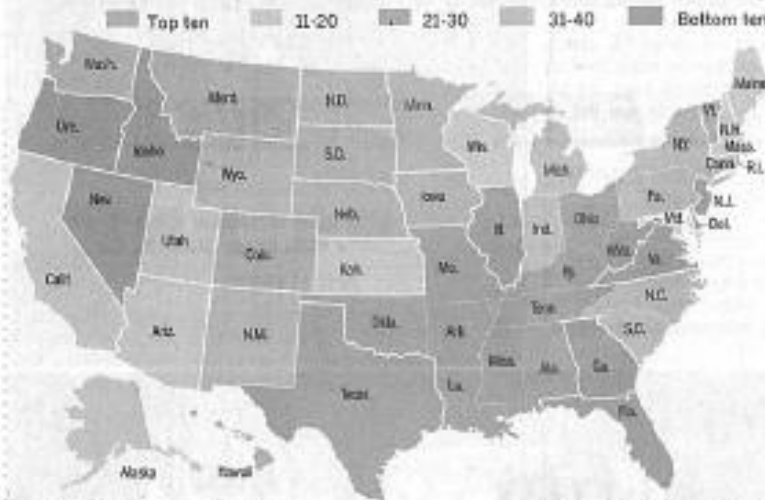
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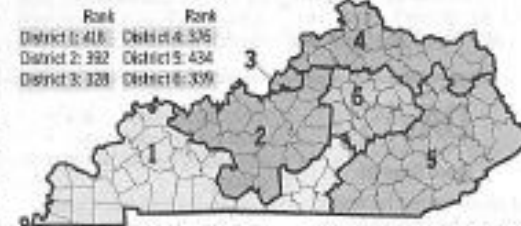
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**A workplace health program,  
anchored by telehealth, is a  
model for ACO**

**Health Care = Sick Care + Well Care**

## **Spending for healthcare**



***Accomplish our goals by increasing efforts on  
Primary & Secondary Prevention***

# A blueprint is drafted

- Present the problem to an HR meeting – “The cost of doing nothing was greater than any solution we could devise – *Paul Mackey, 2005*
- One employee suggested a pilot in Inez, KY with Dr. Wells and 5 mines in the region
- Subsequent meetings - Dr. Wells, epidemiologist, company executives, UK College of Medicine Dean, telemedicine...
- The pilot project was a mobile clinic, staffed by a Nurse Practitioner, connected to Dr. Wells' office via telehealth technology...



**EXCEL MINING L.L.C.  
AND THE  
UNIVERSITY OF KENTUCKY  
INDUSTRIAL HEALTH  
PROGRAM**





**Back of  
the  
Mobile  
Clinic**



**View from outside  
the back of the  
mobile clinic**

**Videoconference  
system,  
stethoscope and  
external camera**





**Workspace,  
medical  
devices and  
exam table**



**View from the  
cab to the back  
of the mobile  
clinic**

**Patient sits in  
the chair on  
the left**





**Dr. Wells' view into the  
mobile clinic**

# The project

- Keep employees/families healthy and safe so they can fulfill their obligations at home and at work
- Easy access to care and needed pharmaceuticals
- MD at 2 corporate offices, NP/RN at all sites
- Co-pay/Co-Insurance features
- Create network of providers/healthcare facilities
- Telemedicine connects all sites to Dr. Wells
- Telemedicine connects all sites to regional and national medical centers of excellence for clinical encounters
- Health Risk Assessment (HRA) – “*Health Check*” uncovers undiagnosed health conditions
- Coaching, treatment plan patient engagement

# Finally some data

- Health Risk Assessments (HRA), referred to as “Health Checks” done once/year at each facility
- Participation increased when employees trusted the information was confidential
- No incentive for participants, Nurses are rewarded, raffles for participants

| Data Source   | Hyper tension     | Hyper cholesterolemia |
|---|-------------------|-----------------------|
| Claims-Based Assessment (2008)                                    | 15%               | 12%                   |
| HRA self report (2008)  | 20%               | 26%                   |
| <b>HRA – data based on biometrics - moderate/high risk (2010)</b> | <b><u>84%</u></b> | <b><u>93%</u></b>     |

|       | Per employee per month total healthcare cost | Change from previous year | Company vs. industry average (+9%/year) |
|-------|--|---------------------------|---|
| 2007  | \$927  |                           |   |
| 2008  | \$1,022                                      | +10.25%                   | +1.25%                                  |
| 2009  | \$1,213                                      | +18.69%                   | +9.69%                                  |
| 2010  | \$1,248                                      | +2.9%                     | -7.1%                                   |
| 2011* | \$1,164                                      | - 6.7%                    | -15.7%                                  |

### \*Other spending impact

- Primary Care, preventative care (+117%)
- Major Hospital Events (\$50K+) down 40%

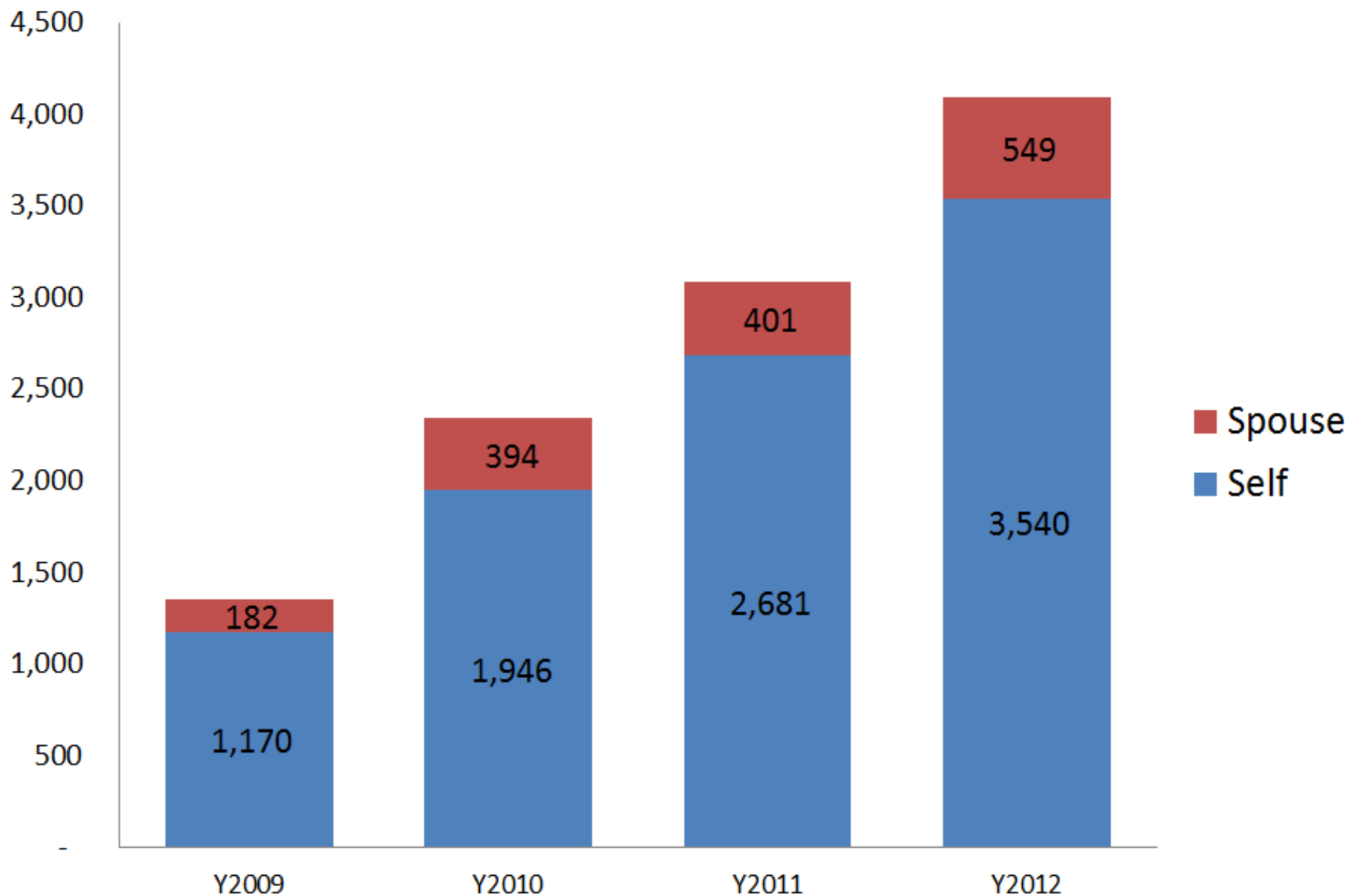
Next project – Home patient monitoring



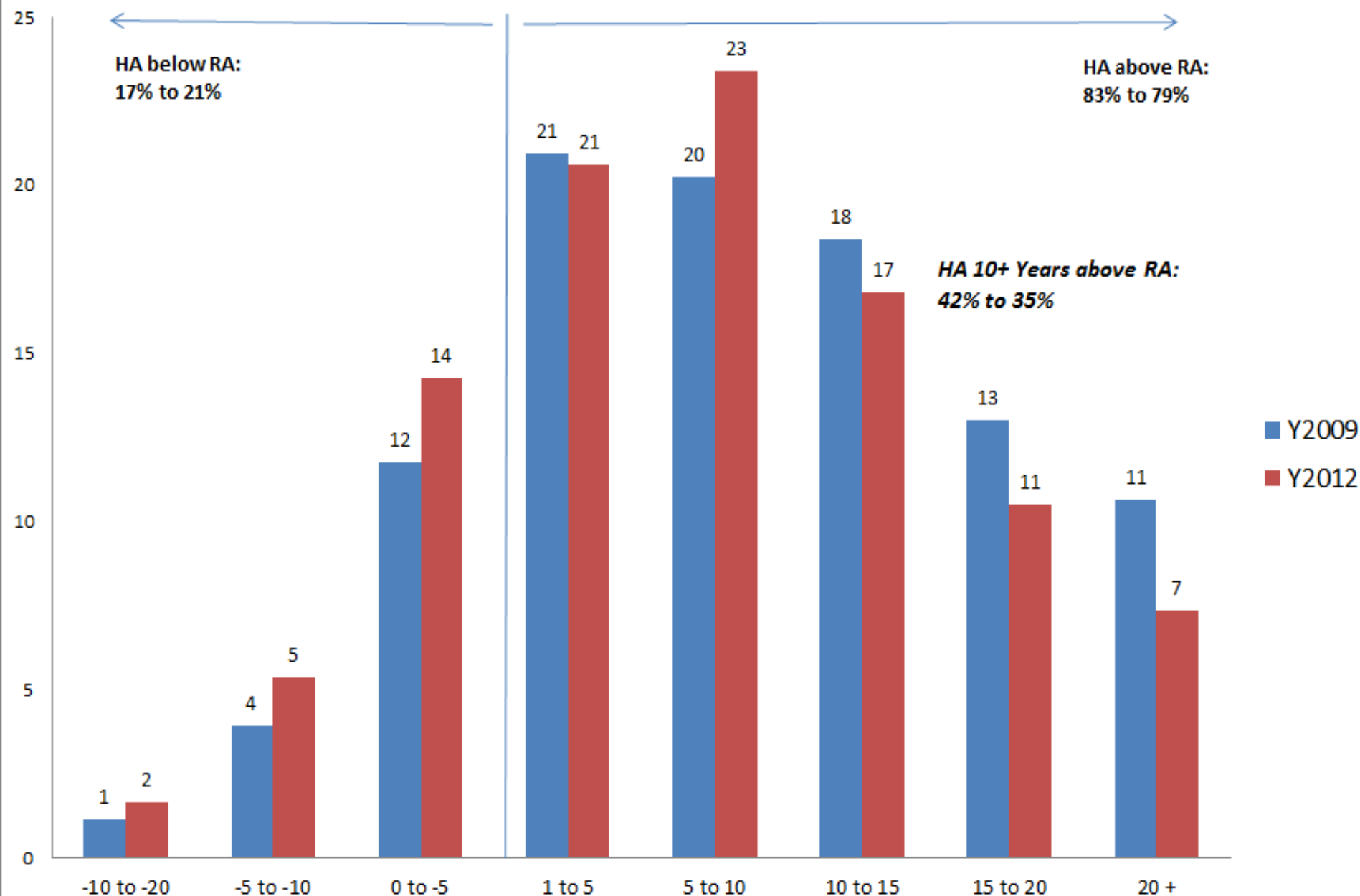
# Productivity, measured by absence

| Year | Total Absence days | Employee months | Absence index (absent days/employee /month) | % change in absences from 2008 |
|------|--------------------|-----------------|---|--------------------------------|
| 2008 | 17,516             | 31,440          | 0.56  | ---                            |
| 2009 | 18,725             | 34,804          | 0.54  | -3%                            |
| 2010 | 16,824             | 37,811          | 0.44  | -20%                           |

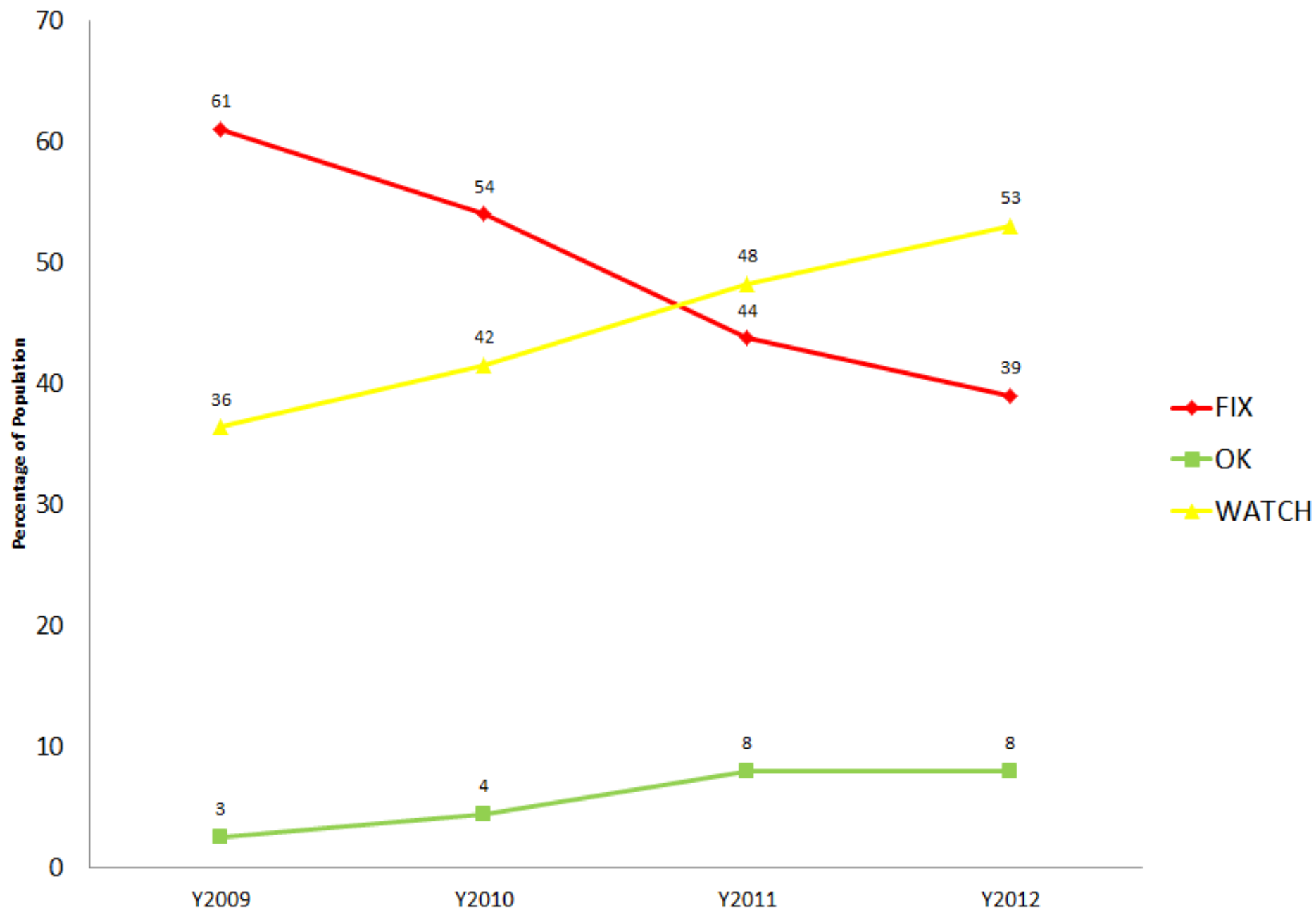
# Number of Health Check Completed over Four Years Among Employees and Spouses: 2009-2012



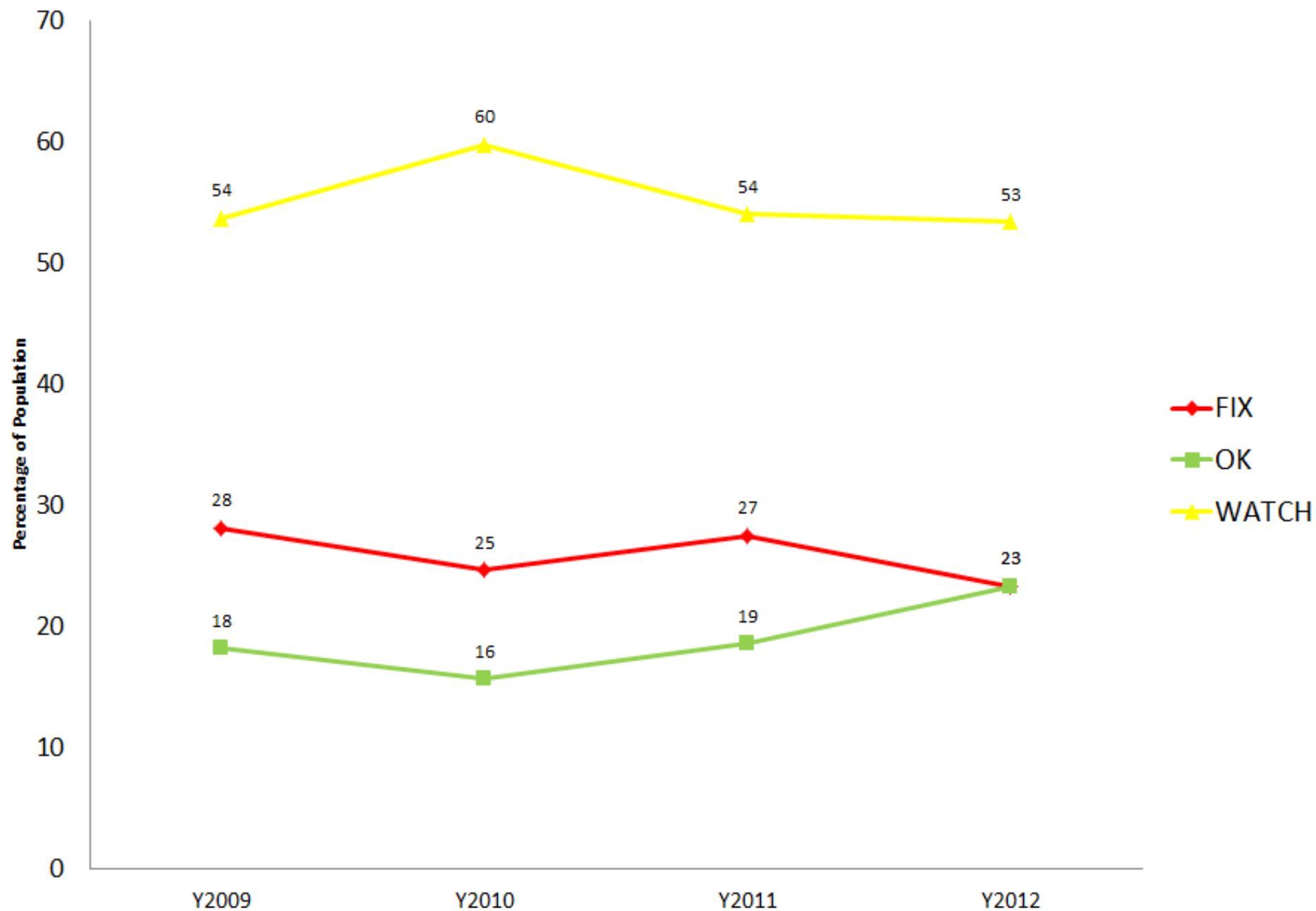
# Cross-Sectional Heart Age (HA) to Real Age (RA) Changes Among Employees over Four Years: 2009-2012



# Cholesterol (LDL & HDL): 4 Year Employee Cohort



# Blood Pressure: 4 Year Employee Cohort



# Conclusions

- Workplace health programs are emerging and telehealth programs should take advantage
- Healthcare's focus from "payment" to "health" can result in success for everyone
- A successful deployment of a workplace health program with a telehealth foundation is a model for ACO's and others who are focused on performance-based healthcare – The implications are much larger than one company